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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,431

01/24/2006

Andrew R. Barron

1789-09703

4791

23505

7590

04/24/2009

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EXAMINER

JACKSON JR, JEROME

ART UNIT

PAPER NUMBER

2815

NOTIFICATION DATE

DELIVERY MODE

04/24/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pathou@conleyrose.com

Office Action Summary	Application No. 10/534,431	Applicant(s) BARRON ET AL.	
	Examiner Jerome Jackson Jr.	Art Unit 2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/18/08;3/23/09</u> . | 6) <input type="checkbox"/> Other: _____ |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/16/09 has been entered.

The drawings were received on 2/16/09. These drawings are acceptable.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-36 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gabriel, of record.

The previous rejection still applies. The claims have not been substantively amended.

Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gabriel in view of Bradley, Clawson, and Lieber, of record .

The previous rejection still applies.

Applicant's arguments filed 2/16/09 have been fully considered but they are not persuasive. Applicant argues Gabriel does not teach an "exposed portion that is not coated with the dielectric layer". The argument is not convincing because figure 3 shows the nanotube exposed on its top surface where the functional group is located. The nanotube 10 is "coated" with silicon dioxide 30 on its bottom surface and "exposed" on its top surface where the tether molecule is disposed. Alternately, insulation 21 "coats"

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nanotube 10 except where tether molecule 20 is covalently bonded to the nanotube.

Claim 1 is still broad and undistinguishing over the applied art. Applicant refers to his figure 1 where the nanotube extends above a dielectric layer and is attached to an indicator molecule. The exact structure of figure 1 is not specifically claimed; therefore, any argument regarding claim structure commensurate in scope to figure 1 is not persuasive of patentability. The claim limitation "an exposed portion" is far broader than figure 1 structure. Arguments referring to the specification as defining the claim structure ("exposed portion") are not convincing of patentability. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). On page 10 of the remarks applicant argues Gabriel does not teach a method where the insulation is removed from the nanotube and a "sensing device" attached thereto. Again this argument is not persuasive because the claims are drawn to a structure rather than to a process of forming the structure, and further, as stated above, the place on the nanotube of Gabriel where the "tether" is covalently attached defines the "exposed portion" of the nanotube. Applicant is reading more limitations into the claim than is justified by the broad claim language.

On pages 11 and 12 applicant argues the place where the sensing molecule in Gabriel is attached to the nanotube is not an "exposed portion that is not coated with the dielectric layer". As stated above, this place on the nanotube of Gabriel precisely defines the "exposed portion not coated with the dielectric", otherwise the sensing

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molecule could not be attached there. The nanotube is exposed to the sensing molecule rather than to the dielectric. The claim language is broad and undistinguishing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Jackson Jr. whose telephone number is 571-272-1730. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jerome Jackson Jr./
Primary Examiner, Art Unit 2815